Department of Environmental Conservation
Response to Comments
For

Alaska Pollutant Discharge Elimination System

Individual Permit AK0000841
Tesoro Alaska Petroleum Company, LLC
Kenai Refinery

Public Noticed February 24, 2017 – April 10, 2017

May 10, 2017

Alaska Department of Environmental Conservation
Wastewater Discharge Authorization Program
555 Cordova Street
Anchorage, AK 99501

1 Introduction

1.1 Summary of Facility / Permit

Tesoro Alaska Petroleum Company LLC (Tesoro or permittee) operates the Kenai Refinery located at Mile 22.5 Kenai Spur Highway on the eastern shore of Cook Inlet, Alaska. The Refinery has a rated processing capacity of 72,000 barrels of crude oil per day.

Crude oil is delivered to the refinery by oil tankers, pipelines and trucks and is then pumped into onsite storage tanks to await processing. The refinery processes crude into finished fuels including propane, fuel gas, gasoline, jet-A fuel, diesel, and bunker fuel. The refinery also produces asphalt during the summer months.

The Alaska Department of Environmental Conservation (Department or DEC) is reissuing individual permit AK0000841-Tesoro, Kenai Refinery (Permit) for the discharge of treated refinery wastewater to Cook Inlet through a single outfall. The Permit authorizes rectangular shaped acute and chronic mixing zones centered on the outfall and extending from the sea floor to the sea surface. Authorized mixing zone parameters, dimensions, dilution factors are as follows:

- The acute mixing zone is authorized for copper, ammonia, total residual chlorine, arsenic and cyanide. The acute mixing zone measures 128 meters (m) long by 1 m wide and has an associated dilution factor of 50.
- The chronic mixing zone is authorized for pH, total aromatic hydrocarbons (TAH), total aqueous hydrocarbons (TAqH), undissociated hydrogen sulfide, phenol, manganese, nickel, mercury and chronic whole effluent toxicity (WET), copper, ammonia, total residual chlorine, arsenic, and cyanide. The chronic mixing zone measures 245 m long by 6 m wide and has an associated dilution factor of 95.

Both mixing zones extend from the seafloor to the sea surface and are oriented with their longitudinal axis parallel to the adjacent Kenai Peninsula shoreline.

1.2 Opportunities for Public Participation

The Department proposes to reissue the Permit after considering all substantive public comments on the Draft Permit and Fact Sheet. To ensure public, agency, and tribal notification and opportunities for participation, the Department:

- identified the Permit on the annual Permit Issuance Plan posted online at: http://www.dec.state.ak.us/water/wwdp/index.htm;
- notified potentially affected tribes via letter, fax and/or email that the Department would be working on the Permit;
- posted the Preliminary Draft Permit and Fact Sheet on-line for a 10-day applicant review on February 2, 2017 and notified tribes, local governments and other agencies;
- posted the public notice on the Department public notice web page for a 45-day public review of the Draft Permit, Fact Sheet, and related documents on February 24, 2017 and notified tribes, local governments and other agencies concurrently;
- posted the Proposed Final Permit on-line for a five-day applicant review ending May 17, 2017, and
- sent email notifications via the APDES Program List Serve when the Preliminary Draft, Draft, and Proposed Final Permits were available for review.

The Department also requested comment from the Departments of Natural Resources (DNR) Fish and Game (DFG), the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, Cook Inlet Regional Citizens Advisory Council (CIRCAC), and the Environmental Protection Agency (EPA).

During the public comment period the Department received comments on the Draft Permit and Fact Sheet from Tesoro, CIRCAC, and EPA. This document summarizes the comments submitted and the justification for any action taken or not taken by DEC in response to the comments.

1.3 Final Permit

The Final Permit was adopted by the Department on [TBD]. There were changes made to the Draft Permit and Fact Sheet resulting from comments received during the public notice that are reflected in the Final Permit and Fact Sheet. Where comments resulted in changes to the permit or fact sheet, these changes are included in the response to those comments. There were also some minor changes from the draft permit documents after public notice to correct typographical and grammatical errors, formatting, and to clarify information.

2 Comments by Tesoro

Tesoro submitted comments on the Draft Permit and Fact Sheet by letter dated April 10, 2017. Each Tesoro comment is summarized below followed by the applicable DEC response.

2.1 Sulfide Limitations and Monitoring

Tesoro Comment 1: Tesoro disagreed with DEC lowering the total sulfide loading limit as a result of comparing a water quality-based effluent limit (WQBEL) based on water quality criteria for undissociated hydrogen sulfide to the technology-based effluent limit (TBEL) for total sulfide. Because there is no water quality data linking undissociated hydrogen sulfide to total sulfide, the comparison is indeterminate. Tesoro believes it would be inappropriate to establish a lower limit for total sulfide as though it were based on a WQBEL for undissociated hydrosulfide at this time. Instead, Tesoro recommended adding reporting requirements for undissociated hydrogen sulfide in Permit Table 2 so that an appropriate evaluation may be conducted during the next reissuance of the Permit.

DEC Response: DEC agrees with the recommendation by Tesoro to add monitoring of undissociated hydrogen sulfide and adopting TBELs for total sulfide based on the calculations in Appendix B of the Permit without comparing to a WQBEL based on conservative assumptions. By obtaining data for undissociated hydrogen sulfide along with total sulfide, DEC will be able to base future decisions on available data rather than conservative assumptions. The following changes will made to the permit documents to address sulfide monitoring and limits:

Revisions from Draft Fact Sheet to Final Fact Sheet

- Section 2.2.2 Concentration Based Characterization, Table 2: Note 5 was added " Water quality criteria for sulfide is based on undissociated hydrogen sulfide while observed range is based on total sulfide data."
- Section 2.2.2, Concentration Based Characterization, In the first sentence below Table 2, “sulfide” was added to the list of exceptions for the reasonable potential analysis (RPA). In the second sentence, "sulfide" was removed for WQBEL evaluations. A third sentence was added that states “Sulfide was not considered in the RPA and WQBEL evaluation due to lack of data correlating total sulfide measured in the effluent to the water quality criteria based on undissociated hydrogen sulfide.”
- Section 3.1.1, TBEL Evaluation: The "*" indicating the TBEL for sulfide was compared to a WQBEL was removed.
- Section 3.1.3 Most Stringent Limit Determination: In the second sentence, "sulfide" was removed. In the fifth sentence “except for sulfide” was removed. In the last sentence “and a mass-based WQBEL for sulfide was removed.”

- Section 3.2 Effluent Limits and Monitoring Requirements, Table 3: Table 3 was expanded to include monthly monitoring of undissociated hydrogen sulfide.
- Section 7.6 Receiving Water Sampling and Analysis Plan: The previous reference to the parameter "Sulfide" was changed to "Undissociated Hydrogen Sulfide."
- Appendix B, Section B.2.1 Statutory and Regulatory Basis, Untitled Table: The parameter "sulfide" was removed from the column titled "TBEL Comparisons."
- Appendix B, Section B.2.3.5 Sulfide: This previous section was removed.
- Appendix B, Section B.2.3.6: Comparison of WQBELs to TBELs, Table B-5: The row for sulfide was entirely deleted.
- Appendix B, Section B.2.4.3: Attainability of Most Stringent Limits discussing sulfide was entirely deleted.
- Appendix B, Section B.2.5, Selected Limits, Table B-6: The Maximum Daily Load (MDL) was changed to 1.98 lb/day, the Average Monthly Load (AML) to 0.91 lb/day and basis was changed to Best Professional Judgement (BPJ).
- Appendix C, Section C.3, Table C-1 Reasonable Potential Summary: The line for the parameter sulfide was removed entirely from this table.

Revisions from Draft Permit to Final Permit

- Table 2 Effluent Limits and Monitoring Requirement for Outfall 001 - Refinery Effluent: The parameter name "Sulfide" was changed to "Total Sulfide", the MDL to 1.98 lb/day and the AML of 0.91 lb/day. The new parameter Undissociated Hydrogen Sulfide was added to the table with a requirement for monthly monitoring.
- Section 2.1 Parameters Authorized (for mixing zone): The previous reference to the chronic only parameter "Sulfide" was changed to “Undissociated Hydrogen Sulfide.”.
- Section 3.5 Receiving Water Sampling and Analysis Plan (SAP): The reference to the parameter "Sulfide" was changed to "Undissociated Hydrogen Sulfide".

2.2 Authorized Discharges

Tesoro Comment 2: Tesoro requested that the definition of Authorized Discharges in Permit Appendix C also include seasonal storm water collected at the Nikiski Terminal and transported to the refinery for treatment.

DEC Response: DEC accepts this recommendation and has modified the last sentence in the definition for Authorized Discharges as underlined and italicized in the following: “seasonal storm water collected at the Kenai Pipeline Facility *or Nikiski Terminal* and transported to the refinery for treatment.”

2.3 Chronic WET Testing

2.3.1 Testing Renewal Solutions

Tesoro Comment 3.1: Tesoro cited logistical challenges associated with the need to collect additional samples for chronic WET test renewal solutions and proposed that Permit Section 1.4.3.7 be modified to allow a single sample to be used throughout the WET test or alternately, if shipping issues occur during the sampling event, the provision should allow for the use of the previous sample until the new sample arrives.

DEC Response: DEC disagrees with the recommendations in this comment. Per 18 AAC 70.030, “the permittee shall use…*Short-term Methods for Estimating Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuary Organisms, 1st edition (August 1995), Technical Report No. EPA/600/R-95/136 (West Coast Manual),* adopted by reference…” DEC acknowledges there can be logistical challenges shipping

samples from Alaska to the lower 48 and, because of this, allows a variance on the hold times up to 72 hours per *West Coast Manual Section 8.5.4* (See Permit Section 1.4.3.7). In instances where a hold time exceeds 36 hours, the laboratory must report on the potential effects on persistence of the sample (See *West Coast Manual, Section 8.7*). DEC has successfully implemented these WET testing requirements in other APDES permits by addressing logistical difficulties on a case-by-case basis while maintaining compliance with the *West Coast Manual* similar to the variance on hold times. DEC will continue to work with permittees on a case-by-case basis but will not establish permit conditions that would set precedence contrary to the *West Coast Manual* adopted by reference in 18 AAC 70.030. No changes to the Permit or Fact Sheet have been made based on this comment.

2.3.2 Testing Survival and Growth Language

Tesoro Comment 3.2: Tesoro recommends that the language of Draft Permit Section 1.4.1.2 should be changed as follows to clarify that mysid shrimp must be run for survival and growth, in conjunction with running one of the other species for larval development:

"Invertebrate. For larval development tests, the permittee must use bivalve species *Crassostrea gigas* (Pacific Oyster) or *Mytilus sp.* (mussel). The initial screening of invertebrate testing shall also include the mysid shrimp, *Americamysis bahia* (formally *Mysidopsis bahia)* for survival and growth."

DEC Response: DEC agrees with this clarification and has modified Permit Section 1.4.1.2 and second bullet in Fact Sheet Section 3.2.4 as recommended by Tesoro.

2.3.3 Determination of Effects and Inhibition Concentrations

Tesoro Comment 3.3: Tesoro recommended the following revision to the final sentence of Permit section 1.4.3.1 to align it with actual procedures used by WET testing labs.

"The WET testing will determine the effect concentration (EC_{25}) point estimate of the effluent concentration that would cause a 25-percent (%) reduction in normal embryo development for the bivalves or in survival for fish and/or mysid shrimp. The WET testing will also determine the inhibition concentration (IC_{25}) point estimate of the effluent concentration that would cause a 25-% reduction in the growth of the fish and/or mysid shrimp."

DEC Response: DEC agrees with this clarification and has modified Permit Section 1.4.3.1 as recommended by Tesoro.

2.3.4 Reporting

Tesoro Comment 3.4: Tesoro recommended the following changes for reporting chronic toxicity units (TU_c) on discharge monitoring reports (DMRs) in Permit Section 1.4.3.2.

"Results must be reported on the DMR using TUc, where $TU_c = 100/EC_{25}$ or $100/IC_{25}$. The reported EC_{25} or IC_{25} must be the lowest point estimate calculated for the applicable survival, growth or normal embryo development endpoints."

DEC Response: DEC agrees with this clarification and has modified Permit Section 1.4.3.2 and the third paragraph in Fact Sheet Section 3.2.4 as recommended by Tesoro.

2.3.5 Dilution Series

Tesoro Comment-3.5: Tesoro noted that the maximum 75 % dilution series specified in Permit Section 1.4.3.6 may be problematic should the effluent salinity at the higher

concentrations be elevated relative to test salinity requirements in methods for some species.

DEC Response: DEC understands the concern raised in the comment and has modified the second sentence of Permit Section 1.4.3.6 and third paragraph of Fact Sheet Section 3.2.4 as underlined and italicized in the following:

"The initial dilution series to screen for toxicity is 1.0, 3.125, 6.25, 12.5, 25, 50 and 75 % (*or maximum hypersaline dilution per test method*) along with a control of dilution water (0 % effluent)."

3 Comments by CIRCAC

3.1 Permit Table 2 - Effluent Limits and Monitoring Sample Type Requirements

CIRCAC Comment: CIRCAC commented on Table 2 - Sample Types noting that many of the sample types have been changed from composites in the existing Permit to grab samples in the Draft Permit and recommended retaining composite sampling to provide a much better representation of effluent conditions.

DEC Response: DEC disagrees that composite sampling would result in a better representation of refinery effluent. DEC switched to grab samples based on an understanding of the detention time (greater than 15 days) and mixing afforded by multiple large tanks and aeration ponds in the refinery wastewater treatment system (RWTS). See DEC response in this Response to Comments (RTC) Section 4.7 for additional information on why grab samples are appropriate. No changes to the Permit or Fact Sheet have been made based on this comment.

3.2 Permit Section 1.4.1.2 Invertebrate

CIRCAC Comment: CIRCAC commented on the choice of the WET invertebrate species specified by DEC and suggested keeping the test species from the existing Permit to allow for a direct comparison to past results.

DEC Response: DEC disagrees with the recommendation by CIRCAC to keep the same species in the Permit. The specified WET species were selected based on their appropriateness for WET testing and being readily available throughout the year. Mysid shrimp was chosen as the invertebrate WET species because it is a well-recognized and readily available estuarine species for WET tests. DEC is attempting to standardize test species in APDES permits as much as practicable. Accordingly, the WET species in the Permit are the same as those specified in other recently issued APDES permits for Cook Inlet. DEC has not changed the Permit documents as a result of this comment.

3.3 Permit Section 1.4.2 WET Monitoring

CIRCAC Comment: CIRCAC commented that the language for conducting WET sampling around refinery turnaround should be clarified to specify such sample events would count as one of the two required semi-annual WET monitoring events.

DEC Response: DEC agrees with this comment has modified Permit Section 1.4.2, as underlined and italicized in the following:

> Monitoring shall be conducted semiannually and no less than 120 days between sample dates. If refinery turnaround is conducted during a given year, monitoring must be conducted while turnaround waste is being treated in the RWTS *and will be counted as one of the two required semiannual monitoring events*.

3.4 Permit Section 1.4.3.5 Chronic WET Toxic Trigger

CIRCAC Comment: CIRCAC commented that the chronic WET toxic trigger has been relaxed from a TU_c of 57 in the existing Permit to 95 in the Draft Permit based on new characterization data for the effluent that revealed copper as the driving parameter and resulted in a substantial increase in the size of the chronic mixing zone. CIRCAC commented that it does not support relaxing the toxic trigger from that specified in the existing Permit.

DEC Response: DEC acknowledges CIRCAC does not support relaxation of the chronic WET trigger and refers the commenter to DEC response in RTC Section 3.6 that is interrelated to this comment.

3.5 Permit Section 3.5 Receiving Water Sampling

CIRCAC Comment: CIRCAC made the following recommendations to improve the Receiving Water Sampling and Analysis Plan (SAP):

- The SAP should include sampling at the edge of the mixing zone (as a monitoring component) during at least two of the sampling events.
- For receiving water sampling, the permit should include a prescribed distance as Section 3.5.1.3 only requires that sampling take place at "*locations where the effluent and receiving water are completely mixed beyond the chronic mixing zone*."
- Oceanographic parameters should include grab sample analyses of total suspended solids (TSS), or calculated estimates based on transmissivity or optical backscatter sensors during oceanographic profiling deployments (CTDs).
- At least two sampling events should take place between November and March, to include "winter" conditions.

DEC Response: The Permit establishes objectives that must be met as a performance standard and requires the SAP to be submitted to DEC for review and approval prior to implementation. The objective of the receiving water sampling is to obtain information on the ambient concentrations of certain water quality parameters to support the future RPA and WQBEL determinations. Monitoring near the mixing zone is contrary to this primary objective as those samples would not represent ambient background. Also, collecting TSS would not meet the objective because TSS is not a water quality parameter. By requiring Department approval while not prescribing means and methods, DEC allows flexibility for the permittee to develop an approach that satisfies these objectives. DEC has not made any changes to the Permit documents as a result of this comment.

3.6 Fact Sheet - Section 5.2 Less Stringent WQBELs and Monitoring

CIRCAC Comment: CIRCAC commented on Draft Fact Sheet - Section 5.2 (antibacksliding for WQBELs and monitoring) stating that it does not adequately address the less stringent WQBELs, removal of TAH and TAqH WQBELs, or reduced monitoring for parameters as a result of authorizing increases to the size of the mixing zones and associated dilution factors subsequently used in the RPA and WQBEL derivations.

DEC Response: DEC disagrees that the antibacksliding was not adequately addressed in the Fact Sheet. The increase in mixing zone size and dilution is the result of obtaining new data for copper, which was found to be the driving parameter for the acute and chronic mixing zones. Per 18 AAC 70.255(c), DEC must ensure that the all water quality criteria are met at the boundary of the chronic mixing zone. While CIRCAC may not support increasing mixing zones in this manner, it is an essential requirement to comply with WQS. Once a mixing zone was determined to be appropriate for authorization, an RPA was conducted for which only copper was determined to exceed, or contribute to an exceedance, of water quality criteria when the accounting for the applicable dilution factor of the receiving water in proposed in the mixing zones. Per Clean Water Act (CWA) 303(d)(4)(B), relaxation

of limitations is allowable so long as they do not violate WQS including the State's Antidegradation Policy. In Section 6 of the Fact Sheet, DEC concluded the five findings of the State's Antidegradation Policy have been met. Therefore, relaxation of the various water quality related limitations discussed in this comment satisfy legal antibacksliding and antidegradation requirements. However, based on this comment, DEC has added the following paragraph inserted after the third paragraph in Section 5.2 in the Fact Sheet to provide more clarity.

> "While characterizing the refinery effluent, DEC determined copper is a primary water quality POC that determined the size and dilution to be authorized in the proposed chronic and acute mixing zones. The existing Permit did not consider copper. As a result of new water quality data for copper and assessment of the assimilative capacity of the receiving water, the proposed mixing zone sizes and associated dilution factors increased. The dilution factors for copper were used in the RPA per the *RPA and WQBEL Guidance* to derive appropriate WQBELs for the Permit that comply with WQS including the State's Antidegradation Policy."

4 Comments by EPA

EPA provided Draft Permit document review comments by email on April 13, 2017. Each comment is summarized below followed by the applicable DEC response.

4.1 Permit, Page 5, Table 2 - Ammonia Reporting

EPA Permit Comment 1: EPA recommends retaining the reporting requirement for ammonia concentration in milligrams per liter (mg/L) in addition to the ammonia loading limit in pounds per day (lbs/day). EPA noted that ammonia is a pollutant of concern and DEC has approved ammonia aquatic life criteria so collecting concentration data for ammonia is necessary for conducting future RPAs.

DEC Response: DEC disagrees with the above recommendation because the permittee will be collecting the referenced ammonia concentration data in order to report loading limits on DMRs during the term of the Permit. Because this data will be submitted to DEC with the next application for reissuance, reporting this information on the DMR is unnecessary. DEC has not revised the Permit documents in association with the recommendation.

4.2 Permit, Page 5, Table 2 - TAH and TAqH Limits

EPA Permit Comment 1: EPA disagreed with the removal of WQBELs for TAH and TAqH as part of the effluent limits and monitoring requirements because it is not adequately supported in the antibacksliding analysis. In addition, EPA believes the data for TAH and TAqH is sporadic and questionable and until reliable data is available, the limits should be retained. EPA also disagreed with the antibacksliding section of the Fact Sheet stating Clean Water Act Section 402(o) prohibits relaxation (or removal in this case) of the TAH and TAqH limits if the revised limits would result in in violations of WQS.

DEC Response: DEC disagrees with EPA that the data is sporadic and questionable and that the limits must be retained. DEC obtained extensive data (more than that reported on DMRs) from Tesoro on TAH and TAqH and reviewed analytical results for data that appeared to be inconsistent. For example, DEC determined that the low reported values for TAqH represented summation of only a few detectable parameters and were appropriately reported on the DMRs evaluated. Furthermore, the low reported values for TAH and TAqH are not surprising given the RWTS includes biological treatment followed by an aeration pond with over 15 days of detention time. Only one high TAH value was observed during the term of the existing Permit (487 micrograms per liter) and was attributable to processing turnaround waste. DEC used this highest value in the RPA and it did not trigger reasonable potential. DEC is confident the data reviewed is representative of the effluent quality and that removal of the limits is appropriate. Removal of the TAH and TAqH limits do not violate WQS including the State's

Antidegradation Policy, which was discussed verbally with EPA. Also see CIRCAC Response in RTC Section 3.6 concerning antibacksliding analysis for WQBELs, which was verbally discussed with EPA.

4.3 Fact Sheet Section 2.2.2- Data Evaluation

EPA Fact Sheet Comment 1: EPA requests that DEC provide additional discussion regarding the different range of data sets used to characterize effluent noting that Draft Fact Sheet Section 2.2.1 states that DEC used data from Feb 2013 - March 2016 to characterize the effluent for mass-based parameters and that Draft Fact Sheet Section 2.2.2 states that DEC used data from Feb 2012 - March 2016 to evaluate compliance with State water quality criteria. EPA noted there is no discussion justifying why DEC used two different date ranges to evaluate the effluent characteristics and that DEC should provide technical justification for using such a limited range of data.

DEC Response: DEC disagrees that they used a limited range of data and the difference in the ranges are related to derivation of TBELs versus that for WQBELs. DEC used three years for mass-based limits to be consistent with the permittee's application and the production-based TBEL calculations provided in Appendix B. Because the TBEL calculations are sensitive to maximum refinery throughput, which occurred during this period of review, DEC considers the data adequately representative for the purpose. However, for WQBEL parameters DEC decided to increase this range to four years to support the RPA. DEC believes the four years of data is appropriate because it provided a robust data set that is representative of the effluent characteristics of refinery effluent to conduct an RPA and develop WQBELs in the Permit. No changes have been made to the Permit or Fact Sheet resulting from this comment.

4.4 Fact Sheet Table 2- Presentation of Sulfide Data

EPA Fact Sheet Comment 2: EPA noted that the Observed Range values shown for Sulfide in Fact Sheet Table 2 should be shown in bold font to ensure consistency with the rest of the table and as the values were greater than the chronic criterion.

DEC Response: DEC concurs with this comment and has revised Fact Sheet Table 2 accordingly by using boldface for observed values greater than criteria. Also see DEC Response RTC Section 2.1.

4.5 Fact Sheet Section 2.2.6 - Presentation of WET Data

EPA Fact Sheet Comment 3: EPA recommended that the WET data referenced Fact Sheet Section 2.2.6 be presented in a table for clarity as EPA sees the summary presentation in the Draft Fact Sheet as being too qualitative.

DEC Response: DEC disagrees with this recommendation because the WET data set is limited to 10 sampling events with multiple reoccurrences of values. DEC believes presentation of the limited data in table format would provide minimal additional information for readers of the document. DEC has not revised the Fact in response to this comment.

4.6 Fact Sheet Section 2.2.2 - Acute WET

EPA Fact Sheet Comment 4: EPA recommends that DEC apply an acute toxicity criterion of 0.3 acute toxicity units (TU_a) in the RPA although there is no such criterion established in WQS. EPA based the recommendation on the following portion of narrative criterion in 18 AAC 70.020 (23)(C):

> "There may be no concentrations of toxic substances in water or in shoreline or bottom sediments, that, singly or in combination, cause, or reasonably can be expected to cause, adverse effects on aquatic life or produce undesirable or nuisance aquatic life, except as authorized by this chapter."

DEC Response: DEC disagrees with the EPA recommendation to apply an acute toxicity criteria of 0.3 TU_a in the RPA. DEC also disagrees with the loose interpretation of the narrative criteria that EPA attempts to use as justification for this recommendation. The Permit sets limits and conditions that, if

adhered to, will not result in discharges that could reasonably be expected to cause adverse effects on aquatic life. Not only does DEC disagree with this justification, applying criteria that is not established in WQS is arbitrary. DEC is aware of successful appeals related to previous attempts to apply this criterion in other permits and this has established precedence. No changes to the Permit or Fact Sheet have been made based on this comment.

4.7 Fact Sheet Table 3 – WET Sample Type

EPA Fact Sheet Comment 5: EPA recommended that instead of grab sampling methods for WET monitoring as required in the Draft Permit documents it should be one of the following:

- 24-hour composite sampling or
- If 24-hour composite sampling is not possible, then four (4) equal volume grab samples must be collected and blended.

DEC Response: DEC disagrees that composite sampling should be used for chronic WET monitoring at the Tesoro refinery. Per *West Coast Manual Section 8.3.4.1.2* if the retention time is greater than 14 days a single grab sample can be collected for a single toxicity test. DEC has determined the average detention time is greater than 15 days. No changes to the Permit or Fact Sheet have been made based on this comment. Also see DEC Response in RTC Section 3.1.

4.8 Fact Sheet - pH Limits

EPA Fact Sheet Comment 6: EPA commented that Fact Sheet Appendix C should provide calculations to show that the less stringent TBELs for pH 6.0 – 9.0 standard units (SU) specified for pH would not cause or contribute to exceedances of the water quality limit.

DEC Response: DEC disagrees that is necessary to conduct an RPA for pH limits that exceed water quality criteria by ± 0.5 SU. DEC contends that the water quality criteria for pH will be met within close proximity of the discharge due to the assimilative and buffering capacity in the receiving water. However, based on this comment, DEC has added the following sentence to the end of Fact Sheet Appendix B, Section B.2.3.2:

> "DEC has assessed the impacts of authorizing these limits and determined that these limits would not result in exceeding water quality criteria at the boundary of the chronic mixing zone; the criteria will be reached in close proximity of the discharge due to available dilution and buffering capacity of the receiving water."